

WHAT IS CLAIMED IS:

1. A method for fusing toner on media in an electrophotographic printing apparatus having a fuser with a heated roll and a backing apparatus between which individual pieces of media pass in a fusing operation performed at a temperature within a temperature range between a maximum temperature and a minimum
5 temperature, the temperature including a first maximum target temperature, said method comprising steps of:

heating the heated roll to a preheated temperature within the temperature range, the preheated temperature being in excess of the first maximum target temperature;
10 interrupting said heating prior to commencement of a fusing operation;
commencing the fusing operation by passing media between the heated roll and the backing structure; and
initiating reheating of the heated roll during the fusing operation only upon a temperature of the heated roll dropping below the first maximum target temperature.

15 2. The method of claim 1, including further steps of:
counting individual pieces of media processed in a print job; and
after a predetermined number of pieces of media having been processed, initiating heating of the heated roll only upon a temperature thereof dropping below a
5 second target temperature lower than the first maximum target temperature.

3. The method of claim 2, including controlling a standby temperature of the heated roll during a standby period between completing a first print job and before commencement of a second print job, said step of controlling the standby temperature including reheating the heated roll to the standby temperature during the standby
5 period, the standby temperature of the heated roll being higher than the first maximum target temperature.

4. The method of claim 3, including delaying said reheating of the heated roll during the standby period for a predetermined time period following completion of the first print job.

5. The method of claim 4, the preheated temperature and the standby temperature being substantially the same.

6. The method of claim 1, including controlling a standby temperature of the heated roll during a standby period between completing a first print job and before commencement of a second print job, said step of controlling the standby temperature including reheating the heated roll to the standby temperature during the standby
5 period, the standby temperature of the heated roll being higher than the first maximum target temperature.

7. The method of claim 6, including delaying said step of reheating the heated roll during the standby period for a predetermined time period following completion of the first print job.

8. The method of claim 6, the preheated temperature and the standby temperature being substantially the same.

9. The method of claim 8, including delaying said step of reheating the heated roll during the standby period for a predetermined time period following completion of the first print job.

10. The method of claim 1, the preheated temperature being at least about 5°C. greater than the first maximum target temperature.

11. The method of claim 10, including elevating the temperature of the heated roll to a standby temperature between completing a first print job and commencing a second print job, the standby temperature being greater than the first maximum target temperature.

12. The method of claim 11, the standby temperature being at least about 5°C. greater than the first maximum target temperature.

13. A temperature control method for a fuser having a temperature range for proper fusing and a maximum target temperature within the range, said method comprising steps of:

- providing a heated roll, a heater and a temperature sensor;
- 5 determining completion of a first print job processed in the fuser;
- sensing a temperature of the heated roll during a standby period between the completion of the first print job and commencement of a second print job; and
- activating the heater during the standby period to elevate the temperature of the heated roll to a standby temperature within the temperature range, the standby
- 10 temperature being greater than the maximum target temperature.

14. The method of claim 13, wherein the standby temperature is at least about 5°C. greater than the maximum target temperature.

15. The method of claim 13, including delaying said step of activating the heater during the standby period for a delay period following completion of the first print job.

16. The method of claim 15, wherein the standby temperature is at least about 5°C. greater than the maximum target temperature.

17. The method of claim 15, said step of delaying being about thirty seconds.

18. The method of claim 17, wherein the standby temperature is at least about 5°C. greater than the maximum target temperature.

19. A temperature control procedure for a fuser in an electrophotographic printing apparatus having a fuser roll and a heater for heating the fuser roll, said control procedure comprising the steps of:

- initiating startup of the fuser by heating the fuser roll to a preheat temperature
- 5 within a temperature range for successful fusing;

commencing fuser operations by passing media through the fuser against the fuser roll;

supplying additional energy for heating the heated roll only upon the temperature thereof falling below a target temperature lower than the preheat
10 temperature; and

heating the heated roll to a standby temperature during a standby period between completion of a first print job and commencement of a subsequent print job, the standby temperature being within the temperature range and being greater than the first target temperature.

20. The procedure of claim 19, the standby temperature being substantially the same as the preheat temperature.

21. The procedure of claim 19, including delaying heating of the heated roll during the standby period for a delay period following completion of the first print job.

22. The procedure of claim 21, the delay period being approximately 30 seconds.